

Date: Wed, 24 Aug 94 04:30:22 PDT
From: Ham-Equip Mailing List and Newsgroup <ham-equip@ucsd.edu>
Errors-To: Ham-Equip-Errors@UCSD.Edu
Reply-To: Ham-Equip@UCSD.Edu
Precedence: Bulk
Subject: Ham-Equip Digest V94 #300
To: Ham-Equip

Ham-Equip Digest Wed, 24 Aug 94 Volume 94 : Issue 300

Today's Topics:

FT-530 current draw ?
ICOM W21AT Accesories
Kenwood TM-733A Quick Reference Guide
prices and ham shops needed in CA ?
Radio Shack discount Stores
Radio Shack HTX-202--a good choice?
TNC Recommendation
Yaesu ft11r extended Xmit mod? (2 msgs)

Send Replies or notes for publication to: <Ham-Equip@UCSD.Edu>
Send subscription requests to: <Ham-Equip-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Equip Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-equip".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 23 Aug 1994 21:23:59 GMT
From: ihnp4.ucsd.edu!agate!kennish@network.ucsd.edu
Subject: FT-530 current draw ?
To: ham-equip@ucsd.edu

In article <STEVE.94Aug22161637@susie.vigra.com>,
Steve Haehnichen <steve@vigra.com> wrote:
>-> On Mon, 22 Aug 1994 16:10:00 GMT, drobert@vax2.concordia.ca (Denis Robert,
ve2ilf) said:
>
>> Could an ft-530 owner please tell me what the current draw is in the
>> following modes ?
>
>> TX on VHF:
>> TX on UHF:

>
>Both were about 1.1 amps draw at 12v on high-power (5W).
>Surprisingly, UHF draws just slightly less than VHF at all transmit
>powers. I dunno why. I didn't check the Tx power saver since I think
>it's hokey and frequently confused. I checked the Low power settings,
>but I don't remember the specific current draw. I should check again.

>1.1 Amps was the maximum draw. It took this from about 11 volts on up
>to 16 volts, where I stopped (maximum rating).

>As I dropped below 11 volts, it drew less and less current, right down
>to 5.6 volts, where it powered down.

Be careful when you do this measurement. Did you use a true
50 ohm load, or did you use the rubber duckie? Because of
the impedance matching circuit, even slight mismatches in
the load will cause markedly different amounts of current to
flow in the output stage. You can see this by using the
rubber duckie as the load, and them moving your hand around it
as you measure the current.

==ken

Date: Tue, 23 Aug 1994 08:15:00 GMT
From: ihnp4.ucsd.edu!agate!iat.holonet.net!ectech!clint.bradford@network.ucsd.edu
Subject: ICOM W21AT Accesories
To: ham-equip@ucsd.edu

G>Does anyone know a source of the power plug for an ICOM W21AT other than
>ICOM. The local dealer wants \$14.95 for the OPC-288/L power plug which is
>really only a pig tail with a special connector.

G>The connector looks like a 3.5 mm power plug but the positive part is
>male instead of female.

Solder your own! Or have a friend make you up a special cable!
The plug will cost a buck. Go get a coiled cord at a local parts house,
and make it sharp looking and functional!

* QMPro 1.52 * A stumble may prevent a fall.

Date: 23 Aug 1994 16:07:04 -0500
From: agate!darkstar.UCSC.EDU!news.hal.COM!olivea!charnel.ecst.csuchico.edu!

yeshua.marcam.com!zip.eecs.umich.edu!newsxfer.itd.umich.edu!europa.eng.gtefsd.com!
howland.reston.ans.net!cs.utexas.
Subject: Kenwood TM-733A Quick Reference Guide
To: ham-equip@ucsd.edu

This is a posting for Brad Killebrew, N5LJV (ST3QI@Jetson.UH.EDU)

Kenwood TM-733A Quick Reference Guide by Brad Killebrew N5LJV

[KEY]	PRESS AND RELEASE [KEY]
[KEY1]+[KEY2]	PRESS AND HOLD [KEY1] DOWN, THEN PRESS [KEY2]
[KEY1],[KEY2]	PRESS [KEY1] MOMENTARILY, THEN PRESS [KEY2]
[KEY]+[PWR]	WITH POWER OFF, PRESS AND HOLD [KEY] THEN HIT [PWR]
[KEY1]+[KEY2]+[PWR]	YOU GET THE IDEA.
[F] (1s)	PRESS AND HOLD [F] FOR ONE SECOND. "F" THEN BLINKS.
[KEY] (1s)	PRESS AND HOLD [KEY] FOR ONE SEOND.
[F],[KEY] (1s)	PRESS [F] MOMENTARILY, THEN PRESS [KEY] FOR ONE SEC.

The following entries are listed in the order as they appear in the manual.

RECEIVE AUDIO SWITCHING	[F] (1s) [CONT SEL]
AUTOMATIC SQUELCH	[MHZ] + [PWR]
S-METER SQUELCH	[F] (1s), [S.QSL]
SQUELCH HANG TIME	[F]+[DIM]
RD OUTPUT SQUELCH CONTROL	[TONE]+[PWR]
VHF+VHF OPERATION	[F],[CONT SEL]
UHF+UHF OPERATION	[F],[CONT SEL]
TRANSMIT BAND LOCK	[F],[BAND SEL]
BLANKING A BAND DISPLAY	[F] (1s), [BAND SEL]
VFO TUNING LIMITS	[F]+[C.IN],(L.FRQ)[MR],(U.FRQ)[MR]
AM/FM MODE	[MHZ] (1s)
FREQUENCY STEP SIZE	[VFO],[F],[STEP]
1 MHZ/10 MHZ TUNING TOGGLE	[VFO],[F]+[MHZ]
POWER OUTPUT	[LOW]
TIME-OUT TIMER	[F] (1s),[TOT]
WRITING MEMORY (SIMPLEX, DUPLEX)	[F],(FREQ),[MR]
WRITING MEMORY (ODD SPLIT)	(RX FRQ),[F],[MR] (1s),(TX FRQ)[MR]
MEMORY TO VFO TRANSFER	[F],[VFO]
ERASING MEMORY CHANNELS	[MR],[F]+[MR]
RECALLING MEMORY CALL CHANNEL	[CALL]
CHANGING CALL CHANNEL (SIMPLEX,DUPLEX)	[F],[C.IN]
CHANGING CALL CHANNEL (ODD SPLIT)	(RX FR),[F],[C.IN] (1s),(TX FR)[CALL]
CHANNEL DISPLAY FUNCTION	[REV]+[PRW]
INITIALIZE VFO ONE BAND	[VFO]+[BAND SEL]+[PWR]

INITIALIZE VFO BOTH BANDS	[VFO]
FULL RESET (MINUS PM)	[MR]+[PWR],[F],[MR]
FULL RESET (PLUS PM)	[MR]+[PWR],[MR]
STORING PROGRAMMABLE MEMORY	[F],[PM],[#]
RECALLING PROGRAMMABLE MEMORY	[PM],[#]
ERASING PROGRAMMABLE MEMORY	[F]+[PM],[1] THRU [6],[MR]
CANCELLING AUTOMATIC OFFET	[VFO]+[REV]+[PWR]
AUTOMATIC SIMPLEX CHECKER	[REV] (1s)
SELECTING A CTCSS TONE FREQUENCY	[F] (1s),[T.SEL],[UP]/[DOWN]
DTMF CONFIRMATION TONES	[PTT]+[DWN]+[PWR]
STORING DTMF IN AUTOMATIC DIALER	[F]+[CALL]+[PWR],{#'s},[PF],[#]
RECALLING STORED DTMF NUMBERS	[F]+[CALL]+[PWR],[MR],[#]
TRANSMITTING STORED DTMF NUMBERS	[PTT]+[PF],[#]
SCAN RESUME TOGLE (CO, TO)	[F] (1s),[VFO]
MEMORY SCAN	[MR] (1s)
LOCKING OUT MEMORY CHANNELS	[MR],[F] (1s),[MR]
BAND SCAN	[VFO] (1s)
PROGRAMMABLE BAND SCAN	[F]+[VFO],(L.FRQ),[MR],(U.FRQ),[MR]
CONFIRMING PROGRAMMABLE LIMITS	[F]+[VFO],(L.SHOWN),[MR](U.SHOWN)
CALL/VFO SCAN	[VFO],[CALL] (1s)
CALL/MEMORY SCAN	[MR],[CALL] (1s)
PROGRAMMABLE MEMORY SCAN	[PM]+[PWR],[PM] (1s)
AUTOMATIC BAND CHANGE (A.B.C.)	[F],[A.B.C.]
ADVANCED INTERCEPT POINT (AIP)	[F]+[A.B.C.]
MUTE	[MUTE]
TRANCEIVER LOCK	[F],[MHZ]
ALL LOCK	[F],[MHZ],[PWR],[F]+[PWR]
AUTOMATIC POWER OFF (APO)	[F] (1s),[MHZ]
BEEP LOUDNESS	[F] (1s),[BEEP]
FREQUENCY READOUT BY BEEPS	[F]+[TONE]+[PWR],[PF]
DISPLAY DIMMER	[F],[DIM]
AUTO DIMMER CHANGE	[F]+[LOW]+[PWR]
DISPLAY DEMONSTRATION MODE	[CALL]+[PWR]
REMOTE CONTROL MODE	[F]+[CONT SEL]
CTCSS	[TONE],TOGLE TILL "CT" APPEARS
AUTOMATIC TONE FREQUENCY ID	[TONE] (1s)
DUAL TONE SQUELCH SYSTEM (DTSS)	[F],[DTSS]
DUAL TONE SQUELCH SYSTEM (TONE SELECT)	[F] (1s),[C.SEL],[#],[SHIFT],ETC.
TONE ALERT	[F],[T.ALT]
TONE ALERT - CHANGE TONE	[F]+[SHIFT]+[PWR]
PACKET BAUD RATE TOGLE	[F]+[STEP]

The following entries are in alphabetical order.

1 MHZ/10 MHZ TUNING TOGGLE	[VFO],[F]+[MHZ]
ADVANCED INTERCEPT POINT (AIP)	[F]+[A.B.C.]

ALL LOCK	[F] , [MHZ] , [PWR] , [F]+[PWR]
AM/FM MODE	[MHZ] (1s)
AUTO DIMMER CHANGE	[F]+[LOW]+[PWR]
AUTOMATIC BAND CHANGE (A.B.C.)	[F] , [A.B.C.]
AUTOMATIC OFFET (CANCELLING)	[VFO]+[REV]+[PWR]
AUTOMATIC POWER OFF (APO)	[F] (1s) , [MHZ]
AUTOMATIC SIMPLEX CHECKER	[REV] (1s)
AUTOMATIC SQUELCH	[MHZ] + [PWR]
AUTOMATIC TONE FREQUENCY ID	[TONE] (1s)
BAND SCAN	[VFO] (1s)
BEEP LOUDNESS	[F] (1s) , [BEEP]
BLANKING A BAND DISPLAY	[F] (1s) , [BAND SEL]
CALL CHANNEL CHANGING (ODD SPLIT)	(RX FR) , [F] , [C.IN] (1s) , (TX FR) [CALL]
CALL CHANNEL CHANGING (SIMPLEX,DUPLEX)	[F] , [C.IN]
CALL CHANNEL RECALLING	[CALL]
CALL/MEMORY SCAN	[MR] , [CALL] (1s)
CALL/VFO SCAN	[VFO] , [CALL] (1s)
CANCELLING AUTOMATIC OFFET	[VFO]+[REV]+[PWR]
CHANGING CALL CHANNEL (ODD SPLIT)	(RX FR) , [F] , [C.IN] (1s) , (TX FR) [CALL]
CHANGING CALL CHANNEL (SIMPLEX,DUPLEX)	[F] , [C.IN]
CHANNEL DISPLAY FUNCTION	[REV]+[PRW]
CONFIRMING PROGRAMMABLE LIMITS	[F]+[VFO] , (L.SHOWN) , [MR] (U.SHOWN)
CTCSS	[TONE] , TOGLE TILL "CT" APPEARS
CTCSS TONE FREQUENCY (SELECTING)	[F] (1s) , [T.SEL] , [UP]/[DOWN]
DIMMER (AUTO CHANGE)	[F]+[LOW]+[PWR]
DIMMER (DISPLAY)	[F] , [DIM]
DISPLAY DIMMER	[F] , [DIM]
DISPLAY DOMONSTRATION MODE	[CALL]+[PWR]
DTMF CONFIRMATION TONES	[PTT]+[DWN]+[PWR]
DTMF IN AUTOMATIC DIALER (STORING)	[F]+[CALL]+[PWR] , {#'s} , [PF] , [#]
DTMF IN AUTOMATIC DIALER (STORING)	[F]+[CALL]+[PWR] , {#'s} , [PF] , [#]
DTMF NUMBERS (RECALLING STORED)	[F]+[CALL]+[PWR] , [MR] , [#]
DTMF NUMBERS (TRANSMITTING STORED)	[PTT]+[PF] , [#]
DUAL TONE SQUELCH SYSTEM (DTSS)	[F] , [DTSS]
DUAL TONE SQUELCH SYSTEM (TONE SELECT)	[F] (1s) , [C.SEL] , [#] , [SHIFT] , ETC.
ERASING MEMORY CHANNELS	[MR] , [F]+[MR]
ERASING PROGRAMMABLE MEMORY	[F]+[PM] , [1] THRU [6] , [MR]
FREQUENCY READOUT BY BEEPS	[F]+[TONE]+[PWR] , [PF]
FREQUENCY STEP SIZE	[VFO] , [F] , [STEP]
FULL RESET (MINUS PM)	[MR]+[PWR] , [F] , [MR]
FULL RESET (PLUS PM)	[MR]+[PWR] , [MR]
INITIALIZE FULL RESET (MINUS PM)	[MR]+[PWR] , [F] , [MR]
INITIALIZE FULL RESET (PLUS PM)	[MR]+[PWR] , [MR]
INITIALIZE VFO BOTH BANDS	[VFO]
INITIALIZE VFO ONE BAND	[VFO]+[BAND SEL]+[PWR]
LOCK (ALL)	[F] , [MHZ] , [PWR] , [F]+[PWR]
LOCK (TRANCEIVER)	[F] , [MHZ]
LOCK (TRANSMIT BAND)	[F] , [BAND SEL]

LOCKING OUT MEMORY CHANNELS
MEMORY CHANNELS (LOCKING OUT)
MEMORY ERASING CHANNELS
MEMORY RECALLING CALL CHANNEL
MEMORY SCAN
MEMORY TO VFO TRANSFER
MEMORY WRITING (ODD SPLIT)
MEMORY WRITING (SIMPLEX, DUPLEX)
MUTE
PACKET BAUD RATE TOGLE
POWER OUTPUT
PROGRAMMABLE BAND SCAN
PROGRAMMABLE LIMITS (CONFIRMING)
PROGRAMMABLE MEMORY (ERASING)
PROGRAMMABLE MEMORY (RECALLING)
PROGRAMMABLE MEMORY (STORING)
PROGRAMMABLE MEMORY SCAN
RD OUTPUT SQUELCH CONTROL
RECALLING MEMORY CALL CHANNEL
RECALLING PROGRAMMABLE MEMORY
RECALLING STORED DTMF NUMBERS
RECEIVE AUDIO SWITCHING
REMOTE CONTROL MODE
S-METER SQUELCH
SCAN (BAND SCAN)
SCAN (CALL/MEMORY)
SCAN (CALL/VFO)
SCAN (PROGRAMMABLE BAND SCAN)
SCAN (PROGRAMMABLE MEMORY)
SCAN MEMORY
SCAN RESUME TOGLE (CO, TO)
SELECTING A CTCSS TONE FREQUENCY
SQUELCH (AUTOMATIC)
SQUELCH (RD OUTPUT CONTROL)
SQUELCH (S-METER)
SQUELCH HANG TIME
STORING DTMF IN AUTOMATIC DIALER
STORING PROGRAMMABLE MEMORY
TIME-OUT TIMER
TONE ALERT
TONE ALERT - CHANGE TONE
TRANSCIEVER LOCK
TRANSMIT BAND LOCK
TRANSMITTING STORED DTMF NUMBERS
UHF+UHF OPERATION
VFO TUNING LIMITS
VHF+VHF OPERATION
WRITING MEMORY (ODD SPLIT)

[MR] , [F] (1s) , [MR]
[MR] , [F] (1s) , [MR]
[MR] , [F]+[MR]
[CALL]
[MR] (1s)
[F] , [VFO]
(RX FRQ) , [F] , [MR] (1s) , (TX FRQ) [MR]
[F] , (FREQ) , [MR]
[MUTE]
[F]+[STEP]
[LOW]
[F]+[VFO] , (L.FRQ) , [MR] , (U.FRQ) , [MR]
[F]+[VFO] , (L.SHOWN) , [MR] (U.SHOWN)
[F]+[PM] , [1] THRU [6] , [MR]
[PM] , [#]
[F] , [PM] , [#]
[PM]+[PWR] , [PM] (1s)
[TONE]+[PWR]
[CALL]
[PM] , [#]
[F]+[CALL]+[PWR] , [MR] , [#]
[F] (1s) [CONT SEL]
[F]+[CONT SEL]
[F] (1s) , [S.QSL]
[VFO] (1s)
[MR] , [CALL] (1s)
[VFO] , [CALL] (1s)
[F]+[VFO] , (L.FRQ) , [MR] , (U.FRQ) , [MR]
[PM]+[PWR] , [PM] (1s)
[MR] (1s)
[F] (1s) , [VFO]
[F] (1s) , [T.SEL] , [UP]/[DOWN]
[MHZ] + [PWR]
[TONE]+[PWR]
[F] (1s) , [S.QSL]
[F]+[DIM]
[F]+[CALL]+[PWR] , {#'s} , [PF] , [#]
[F] , [PM] , [#]
[F] (1s) , [TOT]
[F] , [T.ALT]
[F]+[SHIFT]+[PWR]
[F] , [MHZ]
[F] , [BAND SEL]
[PTT]+[PF] , [#]
[F] , [CONT SEL]
[F]+[C.IN] , (L.FRQ) [MR] , (U.FRQ) [MR]
[F] , [CONT SEL]
(RX FRQ) , [F] , [MR] (1s) , (TX FRQ) [MR]

WRITING MEMORY (SIMPLEX, DUPLEX) [F],(FREQ),[MR]

If errors found, report them to Brad Killebrew N5LJV st3qi@jetson.uh.edu

Date: Wed, 24 Aug 1994 07:34:22 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!EU.net!
Germany.EU.net!news.dfn.de!scsing.switch.ch!swidir.switch.ch!news.unige.ch!ugcmu!
burrus@network.ucsd.edu
Subject: prices and ham shops needed in CA ?
To: ham-equip@ucsd.edu

I need to know the US\$ prices of some antennas and microphones in California.

Ant. : Diamond RH-205 135 cm

RH-771 40 cm

Mic. : MH-12 A 2 B

MH-18 A 2 B

Where are good shops, not too expansive, in the Int'l Airport areas of L.A. or S.F. (CA) ?

Thank's in advance !

Christophe

Date: Tue, 23 Aug 1994 08:20:00 GMT
From: ihnp4.ucsd.edu!agate!iat.holonet.net!ectech!clint.bradford@network.ucsd.edu
Subject: Radio Shack discount Stores
To: ham-equip@ucsd.edu

M>You can give a call (or write) to your local Radio
>Shack district office for that information. If they
>don't have it you can write directly to Tandy in
>Ft. Worth, Texas.

M>The address is:

Geeze, why not just tell him "Marymac, 1-713-392-0747"!!!

<grin>

Excellent firm. Excellent personnel.

* QMPro 1.52 * Dogs come when you call. Cats have answering machines.

Date: 23 Aug 1994 19:40:27 GMT
From: dog.ee.lbl.gov!agate!darkstar.UCSC.EDU!news.hal.COM!olivea!
charnel.ecst.csuchico.edu!yeshua.marcam.com!news.kei.com!sol.ctr.columbia.edu!
news.oberlin.edu!ocvaxa.cc.@@ihnp4.ucsd.edu
Subject: Radio Shack HTX-202--a good choice?
To: ham-equip@ucsd.edu

I'm waiting for my tech license to arrive, and have been going around and around trying to decide what would be a good rig...the dual banders are nice but expensive, and the accessories and batteries seem overpriced and proprietary, esp. with the Standard twin-band. I keep going back to the HTX-202--the accessories are very reasonably priced, and the thing can run on AAs. Although this may be a FAQ, I would like to know the consensus of the on-line ham community on the pros and cons of the HTX-202 before I call up those nice people in Texas and get me one real cheap. Thanks for your advice. --Bill Ruth pruth@ocvaxa.cc.oberlin.edu

Date: 23 Aug 1994 20:52:34 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!swrinde!sdd.hp.com!col.hp.com!
jwc@network.ucsd.edu
Subject: TNC Recommendation
To: ham-equip@ucsd.edu

What is it to be used for? 300 1200, 9600 bd or? vhf hf or?

Date: 23 Aug 1994 23:30:21 GMT
From: ihnp4.ucsd.edu!agate!kennish@network.ucsd.edu
Subject: Yaesu ft11r extended Xmit mod?
To: ham-equip@ucsd.edu

In article <33dve7\$epm@pandora.sdsu.edu>,
Greg Tupper <gtupper@monkfish.nosc.mil> wrote:
>
>
> I am looking at getting a yaesu ft11r but need to be able to make it useful

> for civial air patrol. The sales person said it would need a mod. I asked
> specifically if it was a harware mod or a keypad mod. He said the radio
> would have to be opened up and suggested having it done by a pro at a cost
> of 35 to 40 bucks.

> Was I getting my legged pulled? Is the ft11r a good choice for cap?

> Thanks.

The CAP mod is a hardware mod, and involves opening one set of solder jumpers. The FT-11 is one of the easiest radios to disassemble to the board level. The jumpers are small -- you will need a FINE tip iron and #00 solder wick. You can do it yourself if you are adept at such things. If you are a klutz, maybe it will be worth it to have someone else do it for you.

==Ken

Date: 23 Aug 1994 23:06:45 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!usc!nic-nac.CSU.net!newshub.sdsu.edu!monkfish!gtupper@network.ucsd.edu
Subject: Yaesu ft11r extended Xmit mod?
To: ham-equip@ucsd.edu

I am looking at getting a yaesu ft11r but need to be able to make it useful for civial air patrol. The sales person said it would need a mod. I asked specifically if it was a harware mod or a keypad mod. He said the radio would have to be opened up and suggested having it done by a pro at a cost of 35 to 40 bucks.

Was I getting my legged pulled? Is the ft11r a good choice for cap?

Thanks.

wh6vt
greg tupper
gtupper@nosc.mil

Date: 23 Aug 1994 19:29:19 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!
europa.eng.gtefsd.com!uhog.mit.edu!grapevine.lcs.mit.edu!x.org!
swick@network.ucsd.edu

To: ham-equip@ucsd.edu

References <CuE8pD.F8K@microsoft.com>, <CurArK.H5I@ucdavis.edu>, <33731c\$nj9@server.btg.com>opa.eng

Subject : Re: Yaesu dualband mobile info needed

In article <33731c\$nj9@server.btg.com>, rusty@aurora.btg.com (Rusty Haddock) writes:

|> Correction. 5100 has dual in-band receive. I believe it can be had
|> on the 5200 but not out of the box -- should require a mod.

We (wife and I) have one of each. I like 'em both but definitely prefer the features of the 5100. However, we needed the remote head feature of the 5200. The one feature I'd really love to not have to do without on the 5200 is the dual in-band receive. Brian McMinn's mod collection for the 5100/5200 doesn't give a mod for this, nor does any other mod file I've found. I would dismiss the rumor of a mod as unsubstantiated except that I once had a QSO with someone who claimed that his 5200 *did* have it. That was back when we only owned the 5100 and I didn't log the QSO. Silly me.

If anyone can confirm the existence of a mod adding dual in-band receive to the 5200, I'd sure appreciate it.

73 de Ralph, kd1sm
kd1sm@x.org Internet
kd1sm@kd1sm.ampr.org AMPRnet
kd1sm@k1ugm.#ema.ma.usa AX.25

End of Ham-Equip Digest V94 #300
